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REMARKS

Presently, claims 102-125, 128-131, 134-137 and 140-149 are pending in the application. Claims 126-127, 132-133 and 138-139 have been canceled. Claims 102, 104, 108, 113, 117, 122, 129, 131, 135, 137, 141 and 143 have been amended. New claims 144-149 have been added. Support for the amendments to independent claims 102, 108 and 117 and the features of new claims 144, 146 and 148 may be found, for example, in Fig. 1A and at page 12, line 27 – page 13, line 24 and page 26, line 19 – page 27, line 17 of the specification. Support for the amendments to claims 104, 113, 122 and the features of new claims 145, 147 and 149 may be found, for example in Figs. 10A, 10B and 12. Claims 129, 131, 135, 137 and 141 have been amended to be consistent with the amendments to independent claims 102, 108 and 117, respectively. Accordingly, no new matter has been added to the application by the foregoing amendments.

Descriptions of the prior art references discussed herein and Applicants' arguments with respect thereto, may be found in Applicants' previous Amendments filed in this application on April 25, 2005, September 7, 2005, and April 5, 2006, which are incorporated herein by reference.

Examiner Interview

Applicants and the undersigned thank Examiner Sheleheda for the courtesies extended during a telephone Interview conducted on December 19, 2006, to discuss the present application and Office Action. During the interview, the prior art, in particular U.S. Patent No. 6,177,931 to Alexander *et al.* ("Alexander") and the Examiner's reading thereof with respect to heuristic rules were discussed. Applicants' reasons as to why Alexander does not teach the features of the pending claims were also discussed. Such reasons are detailed below.

As a result of the Interview, the Examiner stated that Applicants' distinctions over the prior art and usage of heuristic rules were understood. However, the Examiner reserved the right to review Applicants' arguments and any amendments in detail upon

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submission of a formal response. The arguments presented in the previous papers and summarized below are substantively the same as those discussed during the Interview.

Response to Examiner's Arguments

Applicants continue to respectfully disagree with the Examiner's reading of Alexander and the Examiner's continued assertion that Alexander teaches the application and/or use of "heuristic rules." Applicants' detailed arguments with respect to heuristic rules are set forth in the previous Amendment, filed April 5, 2006.

With respect to Alexander, the Examiner appears to contend that, because Alexander teaches the use of some rule-based analysis by the Profile Program to determine the viewer profile and viewer characteristics, that, inherently, Alexander *must* utilize some form of analysis that is heuristically based, or, at the very least, employ rules which could be characterized as "heuristic rules". The Examiner reasons that, in Alexander, the logical steps, leading to conclusions about the characteristics of a viewer using filtered, statistically analyzed viewer interaction data, constitute heuristic rules.

While Applicants appreciate the Examiner's reading of Alexander, Applicants respectfully reiterate that Alexander – even if read to teach the use of "rules" that form the basis of viewer characteristics – never discusses the development, use and/or application of a *heuristic process or rule*. That is, any "rules" which are developed or applied in Alexander cannot be said to be rules are *previously developed heuristic rules* or which have been developed through a *heuristic process*. As previously discussed, there is no discussion of the "statistical analysis" used by Alexander's Profile Program applying rules that are based on "exploratory problem-solving techniques that utilize self-educating techniques." Thus, the mere fact that Alexander's discussion of the Profile Program includes examples of how statistical analysis and the various data points utilized therein are applied, does not disclose, teach or suggest the use of "a heuristic process" or "previously developed heuristic rules".

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Claim Rejections – §112, first paragraph

The Examiner has rejected claims 102-143 under 35 U.S.C. § 112, first paragraph for failing to comply with the written description requirement. In particular, the Examiner contends that the phrase, "wherein the number of people in the household is not directly observable from the viewer interaction data," as recited in independent claims 102, 108 and 117 is not supported by the specification.

Although not necessarily agreeing with the Examiner, independent claims 102, 108 and 117 have been amended such that they no longer recite this feature. Accordingly, the Examiner's rejection has been overcome. Applicants respectfully submit that the independent claims, and all claims dependent thereon, are thus properly supported by the specification.

The Examiner has further rejected dependent claims 126, 127, 132, 133, 138 and 139 on similar grounds as set forth at pages 3-4 of the Office Action. Claims 126-127, 132-133 and 138-139 have been canceled. Accordingly, the Examiner's rejection of claims 126-127, 132-133 and 138-139 is moot.

Reconsideration and withdrawal of the Examiner's 112, first paragraph, rejection are respectfully requested.

Prior Art Rejection – § 103(a)

The Examiner has rejected claims 102-143 under 35 U.S.C. §103(a) as being unpatentable over Alexander in view of U.S. Patent No. 6,446,261 to Rosser ("Rosser"). The Examiner contends that Alexander discloses all elements of the present invention, with the exception of inferring the number of people in a household. The Examiner further argues that Rosser teaches this feature, and concludes that it would have been obvious to one skilled in the art to combine the teachings of Alexander and Rosser to result in Applicants' claimed invention. Applicants respectfully traverse this rejection.

Independent claim 102 recites:

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> In a video network, a computer-implemented method of determining the number of people in a household, the method comprising:
>
> (a) monitoring viewer interactions with a multimedia device;
>
> (b) processing the viewer interactions to obtain viewer interaction data corresponding to the viewer interactions;
>
> (c) retrieving one or more previously developed heuristic rules, wherein the previously developed heuristic rules relate at least one aspect of the viewer interaction data to the number of people in the household and wherein the previously developed heuristic rules have been previously developed through the application of at least one heuristic process;
>
> (d) applying one or more of the previously developed heuristic rules to at least a subset of the viewer interaction data; and
>
> (e) inferring the number of people in the household from the viewer interaction data based on the application of the previously developed heuristic rules.

Applicants respectfully submit that the combination of Alexander and Rosser, even if proper, fails to teach or suggest all of the features of independent claim 102. As the Examiner acknowledges, Alexander does not disclose "inferring the number of people in the household." Additionally, as discussed above, Alexander does not teach or suggest the use or application of previously developed heuristic rules, and certainly does not disclose the use that the "previously developed heuristic rules have been previously developed through the application of at least one heuristic process," as recited in independent claim 102.

Rosser also does not teach or suggest the use or application of previously developed heuristic rules. Rosser merely teaches that certain a user's profile factors can be predicted by observing a pattern of the user's viewing in conjunction with the particular types of programming being viewed. Not only is Rosser silent with respect to exactly how such predictions are made, and thus does not explicitly teach or suggest the use of previously developed heuristic rules to obtain such predictions or profile factors, but Rosser's reliance on the *pattern* of the user's viewing teaches away from the use of

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heuristic rules to obtain the noted characteristics. Rather, such a scheme as in Rosser speaks generally to a statistical analysis of the collected or observed data – not the application of heuristic rules.

Since neither Alexander nor Rosser teach or suggest inferring the number of people in the household through the use of previously developed heuristic rules that "relate at least one aspect of the viewer interaction data to the number of people in the household," and which "have been previously developed through the application of at least one heuristic process." Applicants respectfully submit that the combination of Alexander and Rosser does not teach or suggest all of the features of independent claim 102.

Accordingly, Applicants respectfully submit that the Examiner has not met the burden of *prima facie* obviousness, since the Examiner has not pointed to an objective teaching or combination of references which disclose Applicant's claimed invention. That is, even assuming that Alexander and Rosser were properly combinable, not all of the limitations of independent claim 102 would be taught. Thus, independent claim 102 is believed to be allowable over the combination of Alexander and Rosser.

Independent claim 108 and independent claim 117 recite, "retrieving one or more previously developed heuristic rules, wherein the previously developed heuristic rules relate at least one aspect of the viewer interaction data to the number of people in the household and wherein the previously developed heuristic rules have been previously developed through the application of at least one heuristic process...; and inferring the number of people in the household from the viewer interaction data for each interaction session based on the application of the previously developed heuristic rules." For the same reasons discussed above with respect to independent claim 102, even if properly combinable, the combination of Alexander and Rosser does not teach or suggest all of the features of independent claims 108 and 117. Accordingly, independent claims 108 and 117 are believed to be allowable over the combination of Alexander and Rosser.

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With respect to dependent claims 104, 113 and 122, the Examiner has further taken Official Notice (see page 11 of the Office Action) that it is well known in the art "to assign a plurality of different probabilities to different values...for the typical benefit of providing a means to easily identify the probability of any of a plurality of possible values occurring." However, Applicants disagree that there are "facts outside of the record which are capable of instant and unquestionable demonstration as being 'well-known' in the art," as required by M.P.E.P. §2144.03, which would support an Examiner's finding of Official Notice.

To the extent that the Examiner's taking of Official Notice may be applied to any of the pending claims, Applicants respectfully traverse the Examiner's taking of Official Notice, and respectfully request that the Examiner support the taking of Official Notice by producing a relevant reference that shows/teaches assigning a plurality of different probabilities to different values...for the typical benefit of providing a means to easily identify the probability of any of a plurality of possible values occurring, and that the Examiner identify a specific teaching in the reference to support a combination with Alexander and/or Rosser.

Dependent claims 103-107, 109-116, 118-125, 128-131, 134-137 and 140-149 are allowable at least by their dependency on independent claims 102, 108 and 117, respectively. Claims 126-127, 132-133 and 138-139 have been canceled. Reconsideration and withdrawal of the Examiner's obviousness rejection of claims 102-143 are respectfully requested.

Double Patenting

The Examiner has rejected claims 102, 103, 105, 107, 108-112, 114, 116, 117-121 and 123 under the judicially created doctrine of double patenting as being unpatentable over claims 1, 3, 5, 9-11, 13, 14 and 16 of U.S. Patent No. 6,457,010 to Eldering et al. ("the '010 patent"). The Examiner contends that the subject matter claimed in the present application is common to that covered and disclosed by the '010 patent.

Applicant has submitted herewith a Terminal Disclaimer under 37 C.F.R. §1.321(b), stating that the '010 patent and the present application are all commonly

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owned and disclaiming the terminal part of the statutory term of any patent granted on the present application which would extend beyond the full statutory term of the '010 patent. A statement under 37 C.F.R. 3.73(b), showing chain of title of the present application, is also enclosed herewith. Reconsideration and withdrawal of the Examiner's non-statutory double patenting rejection are respectfully requested.

Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully submit that the Examiner's rejections have been overcome, and that the application, including claims 102-125, 128-131, 134-137 and 140-149, is in condition for allowance. Reconsideration and withdrawal of the Examiner's rejections and an early Notice of Allowance are respectfully requested.

Respectfully submitted,

Date: _____12/27/06_____   By: _____

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